New Report Tracks Policy Progress on Expanding K–12 Computer Science Education

Cambridge, Mass. | A new report describing the progress of U.S. states in achieving 10 policy priorities for improving and expanding K–12 computer science (CS) education was released today at a national workshop led by Google, EDC, and the Massachusetts Computing Attainment Network (MassCAN) on Google's Cambridge campus. The report highlights key strategies and issues state leaders must address regarding CS education.

A group of leading CS education organizations co-authored <u>State of the States Landscape</u> <u>Report: State-Level Policies Supporting Equitable K–12 Computer Science Education</u>, with funding from BNY Mellon. The group includes the following:

- EDC
- Code.org
- Education Commission of the States
- NSF BPC Expanding Computing Education Pathways (ECEP) Alliance
- Massachusetts Computing Attainment Network (MassCAN)
- SageFox Consulting Group

"We believe this report can play a powerful role in guiding enhancements to CS education nationwide," said Vicary Graham, chair, New England, BNY Mellon, introducing the report at the workshop. "This is a critical moment to take stock of the CS education work that is underway, identify states' challenges and successes, and chart a clear course to move forward."

The report identifies four strategies for states to consider as they work to strengthen CS education, with the goal of improving workforce success for all youth:

- 1. **Build a broad base of leadership** and ownership among key stakeholders
- 2. **Develop short-, medium-, and long-term strategies**, with a view to coherence and sustainability
- 3. **Collect data to** monitor progress, inform decision making, and drive continuous improvement
- 4. **Use the growing talent pool** of expertise in key organizations and in leadership states

Also highlighted in the report were three critical issues that state leaders must address:

- 1. **Raise the bar** on both the scale of the effort and the quality of the CS learning opportunities available to students from kindergarten through the end of high school.
- 2. **Commit to sufficient funding** to achieve the goal. In most states, the level of funding currently available reflects an early-stage "testing the waters" approach.
- 3. **Work toward continuous improvement** by continuing to examine the CS education landscape and chart progress and challenges over time.

"Even with all of the progress being made, we have a long way yet to go," said EDC's Jim Stanton, executive director of MassCAN and the report's lead author. "A failure to act boldly and urgently will maintain the status quo, in which access to CS is available to only a fraction of the nation's K–12 students. Aggressively addressing the policy priorities described in this report will more quickly and effectively provide CS opportunities to a whole generation of students."

"Adding a new opportunity such as computer science to the K–12 menu is exciting and brings many challenges, said Pat Yongpradit, Code.org's chief academic officer. "The 10 policy recommendations, developed by Code.org's Advocacy Coalition, provide a road map for states to create and sustain equitable infrastructure for rigorous K–12 CS education."

"This report can help guide states in creating an inclusive, collaborative group to develop policies and reforms that will address the underrepresentation of many people in the computer science field," said Rick Adrion, principal investigator of the ECEP Alliance and emeritus professor of computer science at UMass Amherst. "The experience of ECEP proves this is an important first step to broaden participation in computing."

"Computer science has exploded on the education policy landscape, and state leaders are looking for policy guidance," said Jennifer Zinth, director, High School Institute and STEM Center, Education Commission of the States. "This report provides meaningful guideposts for states just beginning to lay the foundation for K–12 computer science education, and for states that are further along, the report identifies solutions to policy components yet to be fully addressed."

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About EDC

EDC designs, implements, and evaluates programs to improve education, health, and economic opportunity worldwide. EDC manages 200 projects across the United States and in more than 20 countries. EDC leads \$27 million in Prek-16 CS education initiatives. Visit www.edc.org or follow us on Twitter at @edctweets.

About MassCAN

The <u>Massachusetts Computing Attainment Network</u> (MassCAN) is a four-year-old initiative that is housed at EDC and focuses on building statewide public support for equitable K–12 computer science education for all students and preparing and inspiring a much larger and more diverse group of students to pursue CS majors and careers.

About Code.org

Code.org is a nonprofit organization dedicated to expanding access to CS and increasing participation among women and underrepresented minorities. Its vision is to elevate CS to a core subject area and to ensure that every student in every school has the opportunity to learn this critical discipline. Visit us at www.code.org.

About ECEP

Expanding Computing Education Pathways (ECEP) is a National Science Foundation-funded Broadening Participation in Computing Alliance. ECEP seeks to increase the number and diversity of students in the pipeline to computing and computing-intensive degrees by promoting state-level CS education reform. Learn more at www.ecepalliance.org.

About Education Commission of the States

Education Commission of the States (ECS) serves as a partner to state policymakers by providing personalized support and helping education leaders come together and learn from one another. Through our programs and services, policymakers gain the insight and experience needed to create effective education policy. Visit www.ecs.org/.

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